



NAC Executive Insights

Safety Culture Series

Job Safety Analysis

Key Points

- Job Safety Analysis (JSA) meetings, which are held to discuss the safe manner of performing and documenting specific tasks individuals are expected to perform during a shift, are an important part of a safety management system (SMS) and thus are essential to developing a culture of safety.
- JSA meetings most effectively occur at the start of a shift or at a time that minimizes disruptions to the regular workflow.
- Properly structured JSA meetings refresh past training, safe work practices, and learnings from incident/accident/near-miss reports.
- JSA meetings should be documented.

Introduction

This Executive Insight discusses the importance of a well-conducted Job Safety Analysis as part of a safety management system to help create and maintain a zero-injury safety culture.

Construction activities involve a multitude of risks and hazards that can potentially endanger workers' health and safety. To address these concerns, it is essential that a Job Safety Analysis meeting be conducted with workers prior to performing a task. The JSA identifies potential hazards associated with the task and discusses steps to eliminate and/or mitigate these hazards. JSAs also serve to refresh prior training and the requirements of the company's safe work practices.

Construction sites are inherently dangerous environments with various potential risks, such as falls, equipment malfunctions, and hazardous materials. Conducting regular JSA meetings helps address these risks by involving all team members in hazard identification, risk assessment, and hazard elimination/mitigation. By clearly outlining procedures and protocols to be followed in conducting a task, misunderstanding can be avoided and collaboration amongst all involved in the task is better assured.

Organizing Effective JSA Meetings

Each organization must develop for itself the specific way JSAs are scheduled, conducted, and documented. The JSA needs to take place just prior to undertaking an activity and cover the specific steps to be taken by the individuals in performing the activity.

JSAs meetings should be set up in accordance with the SMS and should include the site supervisor, safety officer, and all workers directly assigned to take on and complete the activity. The meeting should occur at the beginning of a shift, or at critical junctures during the shift, and cover the activities to be performed during that shift or activity. The meeting should commence with a clear agenda and a review of the specific steps necessary to conduct the activity, including setup, performing the activity, changes in the work environment that may occur during the activity, and securing the site. Doing so ensures everyone understands the goals and scope of the planned work.

In essence, the JSA meeting is a refresher of previous training. While the meeting may need to refer to training and safe work practices, it does not necessarily have to go into the same detail as the original training or safe work practice. The focus of the JSA is on the activities the workers will perform and encounter around them and the potential hazards they could face during the shift.

During the JSA meeting, the participants discuss potential hazards, evaluate the associated risks, and collectively develop strategies for hazard prevention and control. The topics covered typically include task-specific hazards, safety measures, personal protective equipment (PPE) requirements, and emergency response plans.

One of the continuing shortcomings of JSA meetings is that they can become routine and may take place when people are not fully paying attention. Workers, as a result, may see the meetings as a meaningless exercise performed simply to fulfill a corporate requirement. It is essential that meeting leaders be trained to ensure workers are engaged in the JSA meetings. In addition, and to further bolster worker engagement, individual workers can lead specific JSA meetings.

It is crucial to schedule the meetings at a time that minimizes disruptions to the regular workflow. Ideally, JSAs should be held at the beginning of a shift or during a designated break. This allows employees to be fully engaged in the JSA without the pressure of pending work. Additionally, limiting the duration of the meetings to a reasonable timeframe, typically no longer than 15 to 20 minutes, helps keep participants focused and attentive.

Some suggestions for a well-organized and effective meeting include:

- Start by clearly defining the objectives and agenda for the meeting to set expectations.
- Assign a capable facilitator who can steer the discussion and ensure that all relevant topics are covered. Consideration should be given to rotating leadership of the meetings to selected workers.
- Encourage active participation from all team members, making them feel valued and heard.

- Visual aids, such as safety checklists, diagrams, and videos, can be used to enhance understanding and engagement.
- Document the key points and action items from the meeting.

Sources of Topics for a JSA Meeting

In planning a JSA meeting, the meeting leader should refer to the company's training materials and safe work practices. An additional topic for a JSA meeting would be to discuss a recent report on an incident, accident, or near-miss that has been distributed as part of the company's safety management system. This review and discussion, particularly if it relates to the activity to be performed during the shift, is extremely useful. Even though more planning and effort may be required, these types of reviews and discussion help reinforce the learning from that past report. A noted tendency regarding past learnings is that they are not always captured in revised safe work practices and can unfortunately fade from corporate memory if not reinforced.

Documentation of JSA Meetings

Documentation of JSA meetings serves to assure the meeting occurred, that it covered the relevant topics, and that it was attended by the appropriate personnel. It may be needed as a reference for stakeholders who were not present. This documentation is also vital for incident investigation or legal compliance. A typical documented JSA meeting should include the following:

- Date and time of the meeting.
- Attendees and their roles.
- Description of the task or activity analyzed.
- Safe work practices or training discussed.
- Identified hazards and associated risks.
- Control measures and safety precautions discussed.
- PPE requirements.
- Emergency procedures and contact information.
- Signatures of attendees, indicating their commitment to safety and the JSA discussed.

A simplified example of a documented JSA meeting for a construction task is given in the Appendix. The specific form will differ for each company as it must be tailored to meet the requirements of the company's organization and safety management system.

Conclusion

Well-planned JSA meetings conducted at appropriate times and structured to encourage participation and understanding are crucial for maintaining workers' concentration and focus on safety-related matters. JSA meetings should occur at the beginning of a shift or at critical junctions during a shift.

It is essential to structure the meeting to ensure worker attention and input. There may be a tendency for JSA meetings to appear routine. Unless meetings are structured properly and specifically include worker interaction, there may be a tendency for the JSA meeting to be considered a meaningless exercise.

A safety management system should contain a process to assure that learnings from incidents, accidents and near-misses are covered in JSA meetings.

Documentation of the JSA meeting is necessary to assure the meeting has taken place, that it covered the relevant topics, and that it was attended by the appropriate personnel. The documentation may be vital for incident investigations and legal compliance.

The attendees of the JSA meeting should sign off on the documentation to signify their active presence.

For Further Reading – Safety Culture Series (Executive Insights)

- [Introduction to the Safety Culture Series](#)
- [Safety Culture – Human Performance Principles](#)
- [Safety Culture – Worker Participation in the Safety Management System \(SMS\)](#)
- [Safety Culture – Demonstrating a Culture of Care and Support: The Leaders’ Role](#)
- [Safety Culture – Drug and Alcohol Testing](#)
- [Safety Culture – Incident/Accident/Near-Miss Reporting and Investigations](#)
- [Safety Culture – Safety Training](#)
- [Safety Culture – Safe Work Practices](#)
- [Safety Culture – Management Commitment: All Safety Incidents Are Preventable](#)
- [Safety Culture – Subcontractor Involvement in the Safety Culture](#)
- [Safety Culture – Recognition and Reward](#)

Appendix

Example JSA Meeting Documentation

Job Safety Analysis Meeting — Concrete Pouring

Date: September 10, 2023, Time: 9:00 AM Location: Construction Site — Building A

Attendees:

- Project Manager (*specific names of individuals to be included in Attendee roster*)
- Site Supervisor
- Safety Officer
- Concrete Workers

Task Description:

Placing concrete for the foundation of Building A

Overview of Safe Work Practices:

Placing concrete

Identified Hazards:

1. Slips and falls due to wet concrete surfaces.
2. Potential chemical exposure from concrete additives.
3. Heavy equipment movement at/near the work area.
4. Risk of tripping over hoses and equipment.

Control Measures:

1. Workers to wear non-slip boots and use fall protection.
2. Provide proper PPE, including gloves and safety goggles.
3. Establish clear pedestrian pathways and use barriers around the work area.
4. Regular equipment inspections and communication between operators and workers.

PPE Requirements:

- Non-slip boots
- Safety goggles
- Gloves
- Hard hats/safety helmets

Emergency Procedures:

- First-aid station located at site office.
- Contact supervisor or safety officer in case of an incident.
- Evacuation plan posted at the work area.

Signatures:

- Project Manager (*signatures of attendees to be included in meeting minutes for documentation*)
- Site Supervisor
- Safety Officer
- Concrete Worker
- Concrete Worker
- Concrete Worker

About the Author

Ken Arnold was elected to the National Academy of Construction in 2014. In his 55-year career in oil and gas for Shell and as founder and CEO of a mid-size project engineering and project management company, he has been recognized by the National Academy of Engineering, the Society of Petroleum Engineers, the Offshore Technology Conference, API, and ASME for promoting safety in design, construction, and operations of onshore and offshore production facilities. He also is an author on safety, project management, and facilities design and is a Professional Engineer.

Although the author and NAC have made every effort to ensure accuracy and completeness of the advice or information presented within, NAC and the author assume no responsibility for any errors, inaccuracies, omissions or inconsistencies it may contain, or for any results obtained from the use of this information. The information is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness or timeliness, and without any warranties of any kind whatsoever, express or implied. Reliance on any information provided by NAC or the author is solely at your own risk.